2 Sheets—Sheet 1.

J. M. GARDNER.

MAKING CURRYCOMBS.

No. 7,986. Patented Mar. 18, 1851.

Fig: 2.

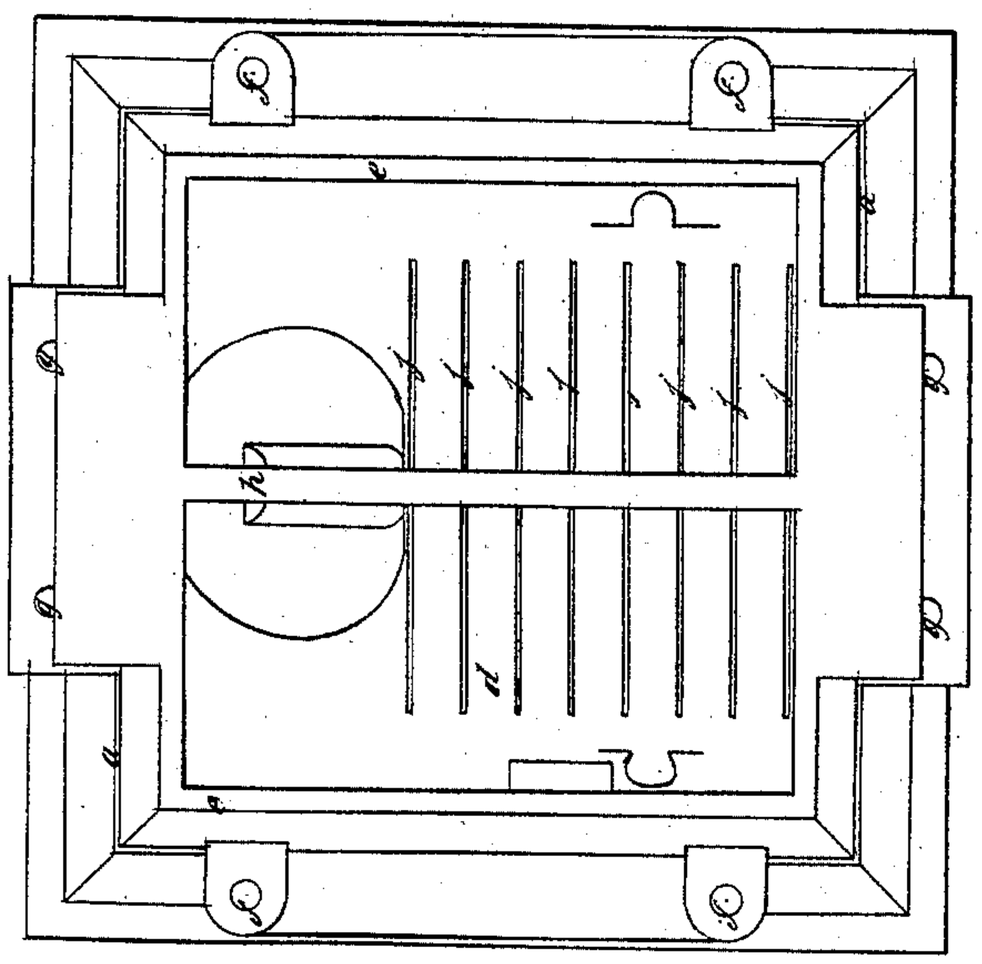


Fig: 1.

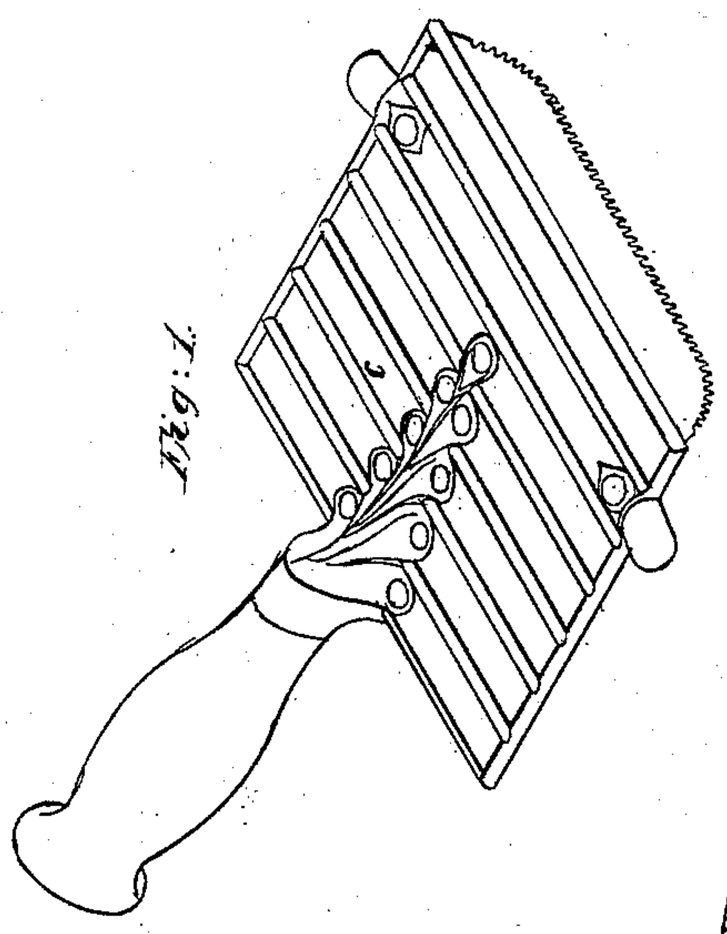
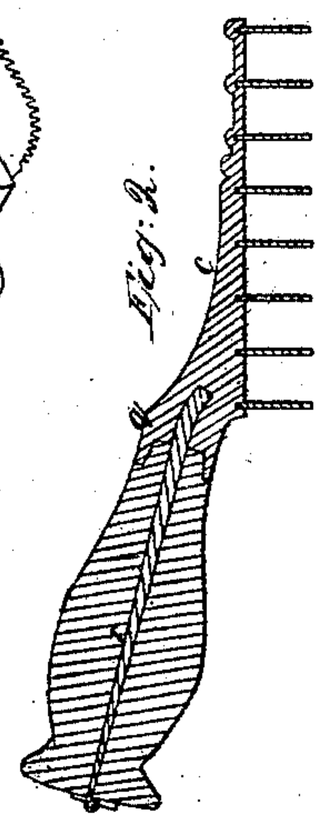


Fig: 3.



2 Sheets—Sheet 2.

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Fig: 6.

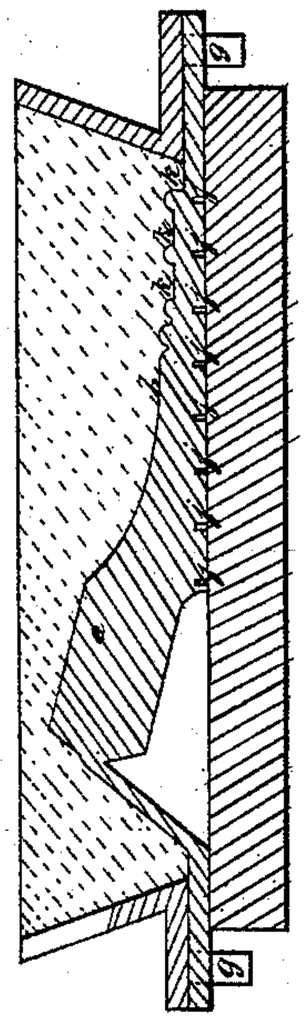


Fig: 8.

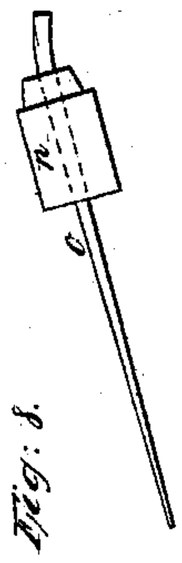


Fig: 7.

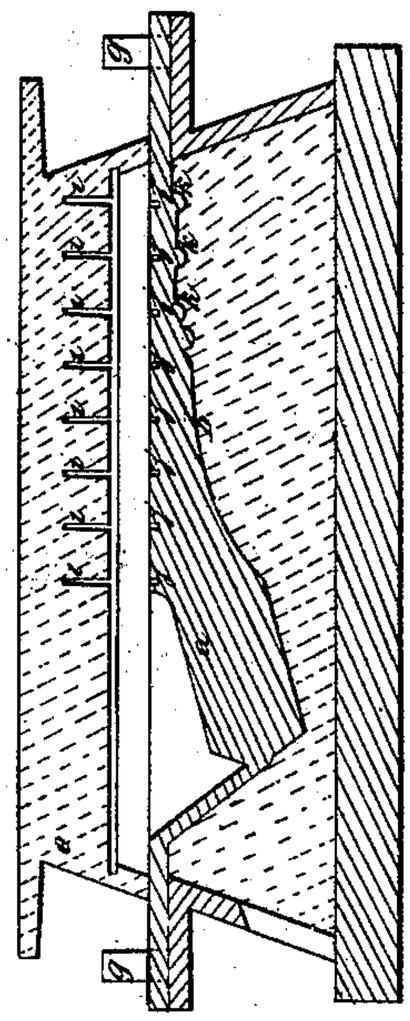


Fig: 4.

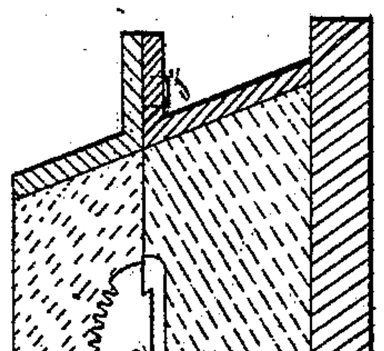
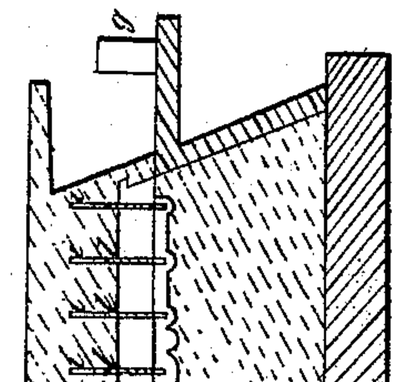


Fig: 5.



UNITED STATES PATENT OFFICE.

JAS. M. GARDNER, OF TROY, NEW YORK.

IMPROVEMENT IN THE METHOD OF CASTING THE BACKS UPON THE TEETH OF CURRY-COMBS.

Specification forming part of Letters Patent No. **7,986,** dated March 18, 1851.

To all whom it may concern:

Be it known that I, JAMES M. GARDNER, of Troy, in the county of Rennsalaer and State of New York, have invented a new and useful Improvement in the Method of Making Curry-Combs; and I do hereby declare that the following is a full, clear, and exact description of the principle or character which distinguishes my invention from all other things before known, and of the manner of making, constructing, and using the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective representation of a curry-comb on my improved plan; Fig. 2, a section thereof. Fig. 3 is a plan of the flask used in casting curry-combs, and Figs. 4 and 5 vertical sections thereof. Fig. 6 represents a vertical section of the nowel and molding-plate reversed for the first part of the molding operation; and Fig. 7, a vertical section of the nowel and cope connected, with the molding-plate interposed.

The same letters indicate like parts in all the figures.

In my improved method of making curry-combs the teeth are cut in a series of sheet-iron plates, which are arranged in a mold together with an iron spike to be driven into a wooden handle, and the back and ferrule cast on to secure the whole together and complete the comb.

In the accompanying drawings, *a* represents a plate of metal, one face, *b*, of which is formed to represent the back *c* of the curry-comb intended to be produced, and the other face, *d*, thereof to represent the under face of the said curry-comb, the projections on the faces of this plate being equal to the intended thickness of the comb. This plate *a* is placed on a board with the face *b* upward, (and on this is placed the nowel, as shown in Fig. 6, reversed.) It is then rammed full of sand, which leaves on the surface of the sand the exact print of the face *b* of the plate *a*, and hence the reverse of the figure of the back of the comb. The nowel and the plate *a* are then turned over and the cope *e* is put on the plate *a*, the relative position of the nowel, plate, and cope being preserved by dowel-pins *f f* and *g g*. The cope is made with a cross-bar, *h*, having slots or notches *i* cut into it from its under edge, and corresponding with grooves *j*, made in the face *d* of the plate *a*, and directly opposite the ribs *k* on the other face of the said plate, which are to produce the ribs on the back of the comb.

When the parts are in the position above described, a series of comb-plates, *l*, made of sheet metal, with teeth on one of their edges and dovetail projections *m* on their other edges, are inserted in the notches *i*, and with the projections *m* in the grooves *j* of the plate *a*. These notches and grooves hold the comb-plates *l* in proper position, and then the cope is rammed full of sand, thus taking the impression of the face *d* of the plate *a*, and at the same time securing the comb-plates in the sand. The cope is then taken off with the comb-plates and the plate *a* removed from the nowel. An iron chill or core, *n*, with an iron spike, *o*, inserted in it, as shown separately at Fig. 8, is placed in the cavity *p* of the mold, with the end of the spike pushing out through a hole in the side of the nowel. The cope is then put on the nowel and secured, the sand being provided with the appropriate sprue or gate. The molten iron is then run into the mold, which casts the back onto the sheet-iron plates and the ferrule *q* onto the spike, the end of the chill or core *n* giving the required form to the inside of the ferrule. In this way the comb is produced with wrought-iron comb-plates, which are firmly secured in the back by the running of the metal around the dovetail projections, and with the spike, to receive the handle *r*, firmly cast in the ferrule, which binds the wood of the handle when driven onto the spike.

Having thus described the manner of procedure according to my invention, such as I have essayed with success, I wish it to be understood that I do not limit myself to the precise mode herein described, but that I cover all modes which are essentially the same, effecting the same end by means substantially the same.

What I claim as my invention, and desire to secure by Letters Patent, is—

The employment of a bar, in combination with the cope of a two-part flask for casting the back onto the plates of curry-combs, the said bar being notched to receive and hold the said plates during the process, all substantially as described.

JAMES M. GARDNER.

Witnesses:
CHAS. H. ROGERS,
E. BELL.